Claims

1. In a method for producing an electric double layer capacitor comprising a positive electrode, a negative electrode, a non-aqueous solvent, an electrolyte containing a supporting salt, a separator, and a gasket, said method comprises:

a step of assembling by caulk sealing inside an electric double layer capacitor said positive electrode, said negative electrode, said non-aqueous solvent, said electrolyte, said separator, and said gasket; and

a heating step.

2. A method for producing an electric double layer capacitor as claimed in Claim 1, wherein the method comprises welding an outer connection terminal to said capacitor after heating.

3. A method for producing an electric double layer capacitor as claimed in Claim 1, wherein the heating temperature is in a range of from 180 to 300 °C.

4. In a mounting method comprising arranging an electric double layer capacitor on a circuit substrate, said mounting method comprises:

a step of assembling by caulk sealing inside an inner electric double layer capacitor said positive electrode, said negative electrode, said non-aqueous solvent, said electrolyte, said separator, and said gasket;

a heating step; and

a step of arranging and reflow soldering said electric double layer capacitor on said circuit substrate.

5. A mounting method as claimed in Claim 4, wherein said method further comprises a step of welding an outer connection terminal to said electric double layer capacitor after said assembling step.

6. A mounting method as claimed in Claim 4, wherein, in the heating region of from 0 to 150 °C, the difference between the temperature profile with respect to time during said heating step and the temperature profile with respect to time during said reflow soldering falls within ± 50 %.

7. A mounting method as claimed in Claim 4, wherein, in the heating region of from 0 to 150 °C, the difference in time duration between the time of said heating step and the time of said reflow soldering falls within ± 50 %.

8. A mounting method as claimed in Claim 4, wherein, in the heating region of from 150 to 180 °C, the difference between the temperature profile with respect to time during said heating step and the temperature profile with respect to time during said reflow soldering falls within ± 20 %.

9. A mounting method as claimed in Claim 4, wherein, in the heating region of from 150 to 180 °C, the difference in time duration between the time of said heating step and the time of said reflow soldering falls within ± 20 %.

10. A mounting method as claimed in Claim 4, wherein, in the

heating region of from 180 to 300 °C, the difference between the temperature profile with respect to time during said heating step and the temperature profile with respect to time during said reflow soldering falls within ± 10 %.

11. A mounting method as claimed in Claim 4, wherein, in the heating region of from 180 to 300 °C, the difference in time duration between the time of said heating step and the time of said reflow soldering falls within ± 10 %.

12. A sealing material for an electric double layer capacitor, comprising a rubber based adhesive provided with asphalt on at least the surface thereof.

13. A sealing material for an electric double layer capacitor as claimed in Claim 12, wherein said asphalt is a fraction obtained by heating crude oil.

14. A sealing material for an electric double layer capacitor as claimed in Claim 12, wherein the rubber based adhesive contains asphalt inside thereof.

15. A sealing material for an electric double layer capacitor as claimed in Claim 12, wherein said asphalt accounts for 1 % or more but not more than 50 % of said rubber based adhesive.

16. A sealing material for an electric double layer capacitor as claimed in Claim 12, wherein said asphalt accounts for 5 % or more but not more than 20 % of said rubber based adhesive.

17. A sealing material for an electric double layer capacitor as claimed in Claim 12, wherein said asphalt is a blown asphalt.

18. A sealing material for an electric double layer capacitor as claimed in Claim 12, wherein said asphalt is a straight asphalt.

19. A sealing material for an electric double layer capacitor as claimed in Claim 12, wherein said rubber based adhesive is based on butyl rubber.

20. A sealing material for an electric double layer capacitor obtained by mixing asphalt with a rubber based adhesive in an organic solvent.

21. A method for producing a sealing material for an electric double layer capacitor, which comprises mixing asphalt with a rubber based adhesive in an organic solvent.

22. A method for producing a sealing material for an electric double layer capacitor as claimed in Claim 21, wherein said rubber based adhesive is based on butyl rubber.

23. A method for producing a sealing material for an electric double layer capacitor as claimed in Claim 21, wherein the method comprises heating after mixing.

24. A method for producing a sealing material for an electric double layer capacitor as claimed in Claim 21, wherein said organic solvent is toluene.

25. A method for producing an electric double layer capacitor, which comprises:

a step of assembling by caulk sealing inside an electric double layer capacitor a positive electrode, a negative

electrode, a non-aqueous solvent, an electrolyte, a separator, and a gasket, comprising dissolving a rubber based adhesive and an asphalt in an organic solvent, applying the resulting product to the inner plane of a positive electrode canister and the plane in contact with the negative electrode of the gasket, and drying the coated product; and

a heating step.

26. A method for producing an electric double layer capacitor as claimed in Claim 25, wherein said asphalt is straight asphalt.

27. A method for producing an electric double layer capacitor as claimed in Claim 26, wherein said drying is performed at a temperature not higher than the melting point of the gasket that is used at a temperature of 80 °C or higher.

28. A method for producing an electric double layer capacitor as claimed in Claim 25, wherein said asphalt is blown asphalt.

29. A method for producing an electric double layer capacitor as claimed in Claim 28, wherein said drying is performed at a temperature not higher than the melting point of the gasket that is used at a temperature of 100 °C or higher.

30. A method for producing an electric double layer capacitor as claimed in Claim 25, wherein the method further comprises forming a mark of finishing heating on the surface of the capacitor canister on finishing heating.

31. In an electric double layer capacitor comprising a

positive electrode, a negative electrode, a non-aqueous solvent, an electrolyte containing a supporting salt, a separator, a gasket, and an external connection terminal, said electric double layer capacitor comprises a mark showing that the product is once heated during its production process.

32. An electric double layer capacitor comprising a positive electrode, a negative electrode, a non-aqueous solvent, an electrolyte containing a supporting salt, a separator, and a gasket, which is heated to substantially the temperature of reflow treatment.

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